

*Substitute Specification  
Clean Version  
U.S. Appln. No. 10/578,241*

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## PROCESS SIMULATION SYSTEM

## TECHNICAL FIELD

[0001]

The present invention relates to a process simulation system of  
10 a production system (for example, a transfer line, etc.) in which a  
number of component elements (for example, processing units,  
clamp units, conveying units, etc.) are operated in cooperation with  
each other.

## 15 BACKGROUND ART

[0002]

There is a process simulation system so far disclosed in  
Patent Document 1 (Japanese Patent Laid-Open Publication No.  
4-64164). In this system, simulation models of component  
20 elements of a production system are shown in a tabular form.  
These models are spread out in the internal memory and the  
simulation is carried out while exchanging data between related  
models by referring to related frame lists. As simulation models  
of component elements, models regarding operators, production  
25 cells, and conveying system are described as examples.

[0003]

In Patent Document 2 (the Japanese Patent Laid-Open  
Publication No. 61-61752), a process simulation system is  
described. In this system, variable data relative to machine  
30 tools, setup station, conveying machine, process works, etc. are  
input into input data files. Processing works, etc. are input into  
data files. And the process simulation is carried out based on  
these variable data and a simulation result is output.